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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/612,089

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EXAMINER

DAVENPORT, MON CHERI S

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/612,089	<b>Applicant(s)</b> OOGHE ET AL.	
	<b>Examiner</b> MON CHERI S. DAVENPORT	<b>Art Unit</b> 2416	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11/12/2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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***Claim Objections***

1. **Claims 7-10** objected to because of the following informalities:
2. With respect to **Claims 7-10**, it is noted that the language used by Applicant merely suggest or makes optional those features described as “Adapted to”; It has been held that the recitation that an element is “adapted to” perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. In re Hutchison, 69 USPQ 138. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-10** rejected under 35 U.S.C. 103(a) as being unpatentable over Ma et al. (US Patent Number 5,953,338) in view of Christie et al. ( US Patent 6,115,380).

Regarding **Claim 1** Ma et al. discloses a method to deliver across an access network a data stream requiring a bandwidth and a with a quality of service, said access network, said method comprising

provisioning a plurality of virtual connections capable of meeting bandwidth and quality of service requirements between a user, among a plurality of users coupled to said access network, and an access server of said access network coupled to a content provider operable to deliver said data stream, wherein the provisioned virtual connections are specific to the user(see

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col. 3, line 30-56, the control module dynamically controls the assigned parameters of the virtual channels, quality of service is included, the control module dynamically provision connection with respect to specific user( groups)); and,

requesting, by the user, said data stream from said content provider after provisioning of the plurality of virtual connections to the user,(see col. 4, lines 1-8, the control module (which is the content provider, checks to make sure the parameter are available after a request is made) after said provisioning of virtual connections (see col. 4, lines 17-26, capacity(data stream) on virtual paths in a group having certain features are leased on an as needed basis, the virtual path group is already established then leased(which reads on request of data stream),a user can request or borrow from an already provisioned virtual connection, the leased capacity is to other customers on an ATM backbone, customers already have capacity , and are requesting more when they need it)

wherein after the user has requested said data stream from said content provider, and if the user lacks support for negotiating or acknowledging the bandwidth through said access network with said quality of service, said method further comprises( see col. 4, lines 1-12):

identifying a virtual connection out of said plurality of provisioned virtual connections capable of guaranteeing said quality of service between said user and said access server( see col. 4, lines 10-12, the virtual connection is set up)

checking whether said virtual connection can convey said bandwidth( see col. 4, line 7-8, checks for available capacity); and

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according to the outcome of said checking whether said virtual connection can convey said bandwidth, allowing or disallowing said data stream to be delivered over said virtual connection to said user( see col. 4, lines 7-12, if not in an overload connection is established).

Christie et al. teaches requesting, by a user out of said plurality of users, said data stream from said content provider after provisioning of the plurality of virtual connections( see col. 5, lines 6-18, user will seize a call connection, an ATMN pre-provisioned cross-connect would be selected within connection)

checking whether said virtual connection can convey said bandwidth; according to the outcome of said checking whether said virtual connection can convey said bandwidth, allowing or disallowing said data stream to be delivered over said virtual connection to said user( see col. 5, lines 55-67, the cross-connect provide ATM connections selected by the signaling processor on a call-by-call basis. The signaling processor makes these selections based on the call processing of the narrowband switch. The narrowband switch is also able to provide special features to the call.)

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Ma et al. invention with Christie et al. because Christie et al. provides ATM virtual connections on a call-by-call basis, supporting the numerous services currently provided by circuit switches( see Christie et al. col. 2, lines 9-11).

Regarding **Claim 2** Ma et al. in view of Christie et al. discloses everything as applied above (see *claim 1*). In addition, the method includes:

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if said virtual connection cannot convey said bandwidth, checking additionally whether said access network can accommodate said bandwidth between said user and said access server along said virtual connection, and( see figure 8, BW available on VP? (If NO), Overload?),

according to the outcome of said additional checking:

adapting the capacity of said virtual connection for it to convey said bandwidth and allowing said data stream to be delivered to said user( see figure 8, approve request, deduct from available bandwidth, setup connection),

or disallowing said data stream to be delivered to said user( see figure 8, reject bandwidth request, return with overload condition).

Regarding **Claim 3** Ma et al. in view of Christie et al. discloses everything as applied above (see *claim 1*). In addition, the method includes:

provisioning a virtual path across said access network, the bandwidth of which being determined from a traffic load expected from said plurality of users(see column 7, lines 21-26, centralized call admission/ usage monitor module determines what virtual path is needed based on existing or expected traffic load and utilization);

aggregating said plurality of virtual connections over said virtual path( see column 7, lines 27-30, centralized call admission control monitor module, instructs bandwidth manager module to dynamically adjust the size of each virtual path, virtual channel, and virtual path group);

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disabling any connection admission control means in said access network that may prevent the aggregating said plurality of virtual connections over said virtual path( see column 7, lines 33-34, adjust, alters, creates or destroys the actual size of the virtual path),

if said virtual connection can convey said bandwidth, checking additionally whether said virtual path can convey said bandwidth( see figure 8, deduct from the available bandwidth for VPN client), and

according to the outcome of said additional checking step, allowing or disallowing said data stream to be delivered over said virtual connection to said user(see figure 8, setup connection).

Regarding **Claim 4** Ma et al. in view of Christie et al. discloses everything as applied above (see *claim 1*). In addition, the method includes:

provisioning a virtual path across said access network, the bandwidth of which being determined from a traffic load expected from said plurality of users(see column 7, lines 21-26, centralized call admission/ usage monitor module determines what virtual path is needed based on existing or expected traffic load and utilization):

if said virtual connection can convey said bandwidth, checking additionally whether said virtual path can convey said bandwidth( see figure 8, deduct from the available bandwidth for VPN client); and

according to the outcome of said additional checking(see figure 8, setup connection):

connecting said virtual connection to said virtual path and allowing said data stream to be delivered to said user( see figure 8, setup connection),

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or disallowing said data stream to be delivered to said user( see figure 8, reject bandwidth request , return with the overload condition).

Regarding **Claim 5** Ma et al. in view of Christie et al. discloses everything as applied above (see *claim 3*). In addition, the method includes:

wherein the bandwidth of said virtual path is determined according to a statistical traffic law, given a number of virtual connections multiplexed over said virtual path, a traffic load per user and a service deny probability (see column 7, lines 21-26, centralized call admission/ usage monitor module determines what virtual path is needed based on existing or expected traffic load and utilization).

Regarding **Claim 6** Ma et al. in view of Christie et al. discloses everything as applied above (see *claim 3*). In addition, the method includes:

wherein the number of virtual connections multiplexed over said virtual path is determined according to a statistical traffic law, given a bandwidth of said virtual path, a traffic load per user and a service deny probability (see column 7, lines 21-26, centralized call admission/ usage monitor module determines what virtual channels is needed based on existing or expected traffic load and utilization).

Regarding **Claim 7** Ma et al. discloses an access network operable to convey a data stream requiring a bandwidth and a quality of service, said access network comprising;

an access server coupled to a content provider operable to deliver said data stream (see figure 1a, section 180, virtual private network and see figure 1a, section 130G-K, ATM edge switch);



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administration means adapted to provision a plurality of virtual connections capable of meeting bandwidth and quality of service requirements between a user, among a plurality of users coupled to said access network, and the access server, wherein the provisioned virtual connections are specific to the user(see figure 1A, section 145, Centralized call admission control / usage monitor, see also col. 3, line 30-56, the control module dynamically controls the assigned parameters of the virtual channels, quality of service is included, the control module dynamically provision connection with respect to specific user( groups)); and,

access resource control means adapted to, after the user has requested said data stream from said content provider, and if said user lacks support for negotiating or acknowledging through said access network said bandwidth with said quality of service( see figure 8, BW available on VP? (If NO), Overload?),

identify a virtual connection out of said plurality of provisioned virtual connections capable of guaranteeing said quality of service between said user and said access server( see col. 4, lines 10-12, the virtual connection is set up, see also col.3 lines 63, 66, and col. 4, lines 1-3, virtual connection are available to clients before parameters requirements are checked)

check whether said virtual connection can convey said bandwidth( see figure 8, BW available on VP?),

according to the outcome of said check, allow or disallow said data stream to be delivered over said virtual connection to said user( see figure 8, approve request, reject bandwidth request),

said administration means is adapted to provision the plurality of virtual connections to the user before said user request the data stream (see col. 4, lines 17-26, capacity (data stream)

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on virtual paths in a group having certain features are leased on an as needed basis, the virtual path group is established then leased (which reads on request of data stream)).

Christie et al. teaches identify a virtual connection out of said plurality of provisioned virtual connections capable of guaranteeing said quality of service between said user and said access server; according to the outcome of said check, allow or disallow said data stream to be delivered over said virtual connection to said user, said administration means is adapted to provision the plurality of virtual connections before said user request the data stream( see col. 5, lines 6-18, user will seize a call connection, an ATMN pre-provisioned cross-connect would be selected within connection) ( see col. 5, lines 55-67, the cross-connect provide ATM connections selected by the signaling processor on a call-by-call basis. The signaling processor makes these selections based on the call processing of the narrowband switch. The narrowband switch is also able to provide special features to the call.)

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Ma et al. invention with Christie et al. because Christie et al. provides ATM virtual connections on a call-by-call basis, supporting the numerous services currently provided by circuit switches( see Christie et al. col. 2, lines 9-11).

Regarding **Claim 8** Ma et al. in view of Christie et al. discloses everything as applied above (see *claim 7*). In addition, the access network includes:

wherein said access resource control means are coupled to said administration means( see figure 1a, section 150, Bandwidth manager, section 140, call control), said administration means(see figure 1a, section 145, centralized call admission control/ usage monitor), are further adapted to adapt the capacity of said virtual connection, and in that said access resource control

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means are further adapted to (see column 7, lines 21-26, centralized call admission/ usage monitor module determines what virtual channels is needed based on existing or expected traffic load and utilization):

if said virtual connection cannot convey said bandwidth, check additionally whether said access network can accommodate said bandwidth between said user and said, access server (see figure 8, BW available on VP( if NO), Overload?); and

according to the outcome of said additional checking step check:

trigger said administration means to adapt the capacity of said virtual connection for it to convey said bandwidth and allow said data stream to be delivered over said virtual connection to said bandwidth (see figure 8, Overload? (is NO), approve request, deduct from available bandwidth for vpn client) and grant said bandwidth to said service (see figure 8, setup connection), or

disallow said data stream to be delivered to said user( see figure 8, Overload?(if yes), reject bandwidth request, return with overload condition)

Regarding **Claim 9** Ma et al. in view of Christie et al. discloses everything as applied above (see *claim 7*). In addition, the access network includes:

wherein said administration means are further adapted to-

provision a virtual path across said access network( see figure 8, deduct from available bandwidth for vpn client), the bandwidth of which being determined from a traffic load expected from said plurality of users(see column 7, lines 21-26, centralized call admission/ usage monitor module determines what virtual channels is needed based on existing or expected traffic load and utilization);

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aggregate said plurality of virtual connections over said virtual path( see column 7, lines 27-30, centralized call admission control monitor module, instructs bandwidth manager module to dynamically adjust the size of each virtual path, virtual channel, and virtual path group), and

disable any connection admission control means in said access network that may prevent from aggregating said plurality of virtual connections over said virtual path( see column 7, lines 33-34, adjust, alters, creates or destroys the actual size of the virtual path), and wherein said access resource control means are further adapted to:

if said virtual connection can convey said bandwidth, check additionally whether said virtual path can convey said bandwidth( see figure 8, deduct from the available bandwidth for VPN client),

according to the outcome of said additional check, allow or disallow said data stream to be delivered to said user(see figure 8, setup connection).

Regarding **Claim 10** Ma et al. in view of Christie et al. discloses everything as applied above (see *claim 7*). In addition, the access network includes:

wherein said access resource control means are coupled to said administration means, said administration means( see figure 1a, section 160, centralized control module) are further adapted to:

provision a virtual path across said access network (see figure 8, deduct from available bandwidth for vpn client), the bandwidth of which being determined from a traffic load expected from said plurality of users (see column 7, lines 21-26, centralized call admission/ usage monitor

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module determines what virtual channels is needed based on existing or expected traffic load and utilization); and

connect said virtual connections to said virtual path, and wherein said access resource control means are further adapted to(see figure 8, setup connection):

if said virtual connection can convey said bandwidth, checking additionally whether said virtual path can convey said bandwidth ( see figure 8, deduct from the available bandwidth for VPN client); and

according to the outcome of said additional checking step

trigger said administration means for it to connect said virtual connection to said virtual path and allow said data stream to be delivered to said user(see figure 8, setup connection), or

disallow said data stream to be delivered to said user( see figure 8, reject bandwidth request).

### ***Response to Arguments***

5. Applicant's arguments filed 11/12/2008 have been fully considered but they are not persuasive.

In the remarks on pgs. 10-11 of the amendment, the applicant contends that Ma does not teach or suggest “the provisioned virtual connections are specific to the user, and the user request a data stream after the provisioning of a plurality of virtual connections specific to the user”

Examiner respectfully disagrees Ma teaches a user can request or borrow from an already provisioned virtual connection, the leased capacity is to other customers on an ATM backbone, customers already have capacity , and are requesting more when they need it.

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***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MON CHERI S. DAVENPORT whose telephone number is (571)270-1803. The examiner can normally be reached on Monday - Friday 8:00 a.m. - 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin C. Harper/  
Primary Examiner, Art Unit 2416

/Mon Cheri S Davenport/  
Examiner, Art Unit 2416  
January 30, 2009